DialogIP

Dialog eLink: Order File History

Matrix material for fixing bone fractures - consisting of a copolymer of hydrophilic and hydrophobic monomers reinforced with resorbable non-non-toxic fibres
Patent Assignee: MED TECH RES INST
Inventors: BELYCH S; CHROMOV G L; DAVYDOV A B; MOSCENSKII A D; MOVSOVIC I A; ROJTBERG G I; VOSKRESENS G L

Patent Family (2 patents, 1 country)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
DE 2947985	A	19810917	DE 2947985	A	19791128	198139	B
DE 2947985	C	19870716	DE 2947985	A	19791128	198728	E

Priority Application Number (Number Kind Date): DE 2947985 A 19791128

Patent Details

Patent Number	Kind	Language	Pages	Drawings	Filing Notes
DE 2947985	A	DE	13		

Alerting Abstract: DE A

New biodestructive material for use as a joining element for bone tissue is a matrix of (A) a non-toxic resorbable polymer consisting of hydrophilic and hydrophobic members and (B) a reinforcing component made up of non-toxic, resorbable fibres.

The polymer component of the matrix pref. contains 20-40wt.% hydrophilic monomer. Pref. hydrophilic monomers are N-vinyl-pyrrolidone and acrylamide. Pref. hydrophobic components of the polymer are alkyl acrylates, esp. methyl methacrylate. The reinforcing fibre (pref. constituting 50-80wt.% of the matrix.) pref. consists of filaments of polyamide, oxycellulose and/or polyvinyl alcohol.

Used in the form of rods, clamps, plates etc. for fixing bones after fractures etc. The new material facilitates fixing of fractured bones, but is gradually absorbed so that surgical removal is not necessary. The material is easily worked, so that the shape and size of the fixing elements can be tailored to the individual case.

Equivalent Alerting Abstract:
DE C

New biodestructive material for use as a joining element for bone tissue is a matrix of (A) a non-toxic resorbable polymer consisting of hydrophilic and hydrophobic members and (B) a reinforcing component made up of non-toxic, resorbable fibres.

The polymer component of the matrix pref. contains 20-40wt.% hydrophilic monomer. Pref. hydrophilic monomers are N-vinyl-pyrrolidone and acrylamide. Pref. hydrophobic components of the polymer are alkyl acrylates, esp. methyl methacrylate. The reinforcing fibre (pref. constituting 50-80wt.% of the matrix.) pref. consists of filaments of polyamide, oxycellulose and/or polyvinyl alcohol.

Used in the form of rods, clamps, plates etc. for fixing bones after fractures etc. The new material facilitates fixing of fractured bones, but is gradually absorbed so that surgical removal is not necessary. The material is easily worked, so that the shape and size of the fixing elements can be tailored to the individual case. (13pp)

International Classification (Main): A61B-017/18 **(Additional/Secondary):** A61K-031/74, A61K-009/70, A61L-025/00, A61L-027/00

Original Publication Data by Authority

Germany

Publication Number: DE 2947985 A (Update 198139 B)
Publication Date: 19810917
Biodestruktiver Stoff fuer Verbindungselemente fuer Knochengewebe
Assignee: Vsesojuznyj naucno-issledovatelskij i ispytatelnyj institut medicinskoj techniki, Moskva, SU (MEDT-R)
Inventor: Belych, Sergej I Davydov, Anatolij B Chromov, Gennadij L., Moskva, SU MOSCENSKII A D Movsovic, Ilja A Rojtberg, Gennadij I Voskresenskij, Gennadij L Moscenskij, Anatolij D., Moskovskaja oblast, SU
Agent: Zellentin, R., Dipl.-Geologe Dr.rer.nat., 8000 Muenchen; Zellentin, W., Dipl.-Ing., Patentanwalt, 6700 Ludwigshafen
Language: DE (13 pages)
Application: DE 2947985 A 19791128 (Local application)
Original IPC: A61B-17/18 A61K-9/70 A61K-31/74 A61L-25/00 A61L-27/00
Current IPC: A61B-17/18 A61K-9/70 A61K-31/74 A61L-25/00 A61L-27/00
Current ECLA class: A61B-17/58 A61L-27/48+C08L39/06
Claim: * 1. Biodestruktiver Stoff fuer Verbindungselemente fuer Knochengewebe, d er eine Matrix aus einem nichttoxischen resorbierbaren Polymer, das aus hydrophilen und hydrophoben Gliedern besteht, und eine bewehrende Komp onente enthaelt, die aus nichttoxischen im Koerper resorbierbaren Faser n ausgefuehrt ist. |DE 2947985 C (Update 198728 E)
Publication Date: 19870716
Biodestruktives Material fuer Verbindungselemente fuer Knoc hengewebe
Assignee: Vsesojuznyj naucno-issledovatelskij i ispytatelny j institut medicinskoj techniki, Moskau/Moskva, SU
Inventor: Belych, Se rgej I Davydov, Anatolij B Chromov, Gennadij L., Moskau/Moskva, SU Mosc enskij, Anatolij D., Moskovskaja oblast, SU Movsovic, Ilja A Rojtberg, Gennadij I Voskresenskij, Gennadij L Persin, Gelj G., Moskau/Moskva, SU Moskvitin, Valerij A., Belgorod-Dnestrovskij, Odesskaja oblast, SU
Age nt: Zellentin, R., Dipl.-Geologe Dr.rer.nat., 8000 Muenchen; Zellentin, W., Dipl.-Ing., Patentanwalt, 6700 Ludwigshafen
Language: DE
Applicati on: DE 2947985 A 19791128 (Local application)
Priority: DE 2947985 A 19 791128
Original IPC: A61L-27/00 A61L-25/00
Current IPC: A61L-27/00(A) A 61L-25/00
Current ECLA class: A61B-17/58 A61L-27/48+C08L39/06

Claim: * 1. Biodestruktives Material aus einer Polymermatrix und aus einem Faser stoff als bewehrende Komponente fur Verbindungselemente fur Knochengewe be, **dadurch gekennzeichnet,** dass die Matrix aus einem resorbierbar en Copolymeren aus nichttoxischen hydrophilen Gliedern in Form von N-Vi nylpyrrolidon, Acrylamid, Vinylcaprolactam, Athylenglykolmonomethacryla t, Methacrylamid und Acrylsaure und hydrophoben Gliedern in Form von Al kylacrylaten, Vinylacetat und ~alpha~-Athoxycyanacrylat besteht, wobei der Anteil der hydrophilen Glieder in der Matrix im Bereich von 20 bis 40 Gew.-% liegt, und dass der Faserstoff aus nichttoxischen, vom Korper resorbierbaren Fasern oder Faden besteht.